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interference will be caused to the regular services of stations operating in accordance with the Commission's Table of Frequency Allocations (§2.106 of this chapter).

(d) The rendition of communication service for hire is not permitted under any developmental authorizations unless specifically authorized by the Commission.

(e) The grant of a developmental authorization carries with it no assurance that the developmental program, if successful, will be authorized on a permanent basis either as to the service involved or the use of the frequencies assigned or any other frequencies.

§ 101.411 Supplementary showing required.

(a) Authorizations for development of a proposed radio service in the services included in this part will be issued only upon a showing that the applicant has a definite program of research and development, the details of which must be set forth, which has reasonable promise of substantial contribution to these services within the term of such authorization. A specific showing should be made as to the factors which qualify the applicant technically to conduct the research and development program, including a description of the nature and extent of engineering facilities that the applicant has available for such purposes.

(b) Expiring developmental authorizations may be renewed only upon the applicant's compliance with the applicable requirements of §101.413 (a) and (b) relative to the authorization sought to be renewed and upon a factual showing that further progress in the program of research and development requires further radio transmission and that the public interest, convenience or necessity would be served by renewal of such authorization.

§ 101.413 Developmental report required.

(a) Upon completion of the program of research and development, or, in any event, upon the expiration of the instrument of station authorization under which such investigations were permitted, or at such times during the

term of the station authorization as the Commission may deem necessary to evaluate the progress of the developmental program, the licensee must submit a comprehensive report on the following items, in the order designated:

- (1) Report on the various phases of the project which were investigated;
- (2) Total number of hours of operation on each frequency assigned;
- (3) Copies of any publication on the project;
- (4) Detailed analysis of the result obtained; and
- (5) Any other pertinent information.

(b) In addition to the information required by paragraph (a) of this section, the developmental report of a station authorized for the development of a proposed radio service must include comprehensive information on the following items:

- (1) Probable public support and methods of its determination;
- (2) Practicability of service operations;
- (3) Interference encountered;
- (4) Pertinent information relative to merits of the proposed service;
- (5) Propagation characteristics of frequencies used, particularly with respect to the service objective;
- (6) Frequencies believed to be more suitable and reasons therefor; and
- (7) Type of signals or communications employed in the experimental work.

(c) Developmental reports will be made a part of the Commission's public records, except upon the applicant's specific request for confidentiality and Commission approval in accordance with §0.459 of this chapter. Information determined confidential by the Commission will not be publicly disclosed.

[61 FR 26677, May 28, 1996, as amended at 63 FR 68983, Dec. 14, 1998]

Subpart G—24 GHz Service and Digital Electronic Message Service

§ 101.501 Eligibility.

See §101.147(n) for licensing of DEMS facilities in the 10.6 GHz band. Applications for new facilities using the 18 GHz band are no longer being accepted. Any entity, other than one precluded by §101.7, is eligible for authorization

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to provide 24 GHz Service under this subpart.

[65 FR 59359, Oct. 5, 2000]

§ 101.503 Digital Electronic Message Service Nodal Stations.

10.6 GHz DEMS Nodal Stations may be authorized only as a part of an integrated communication system wherein 10.6 GHz DEMS User Stations associated therewith also are licensed to the 10.6 GHz DEMS Nodal Station licensee. Applications for 10.6 GHz DEMS Nodal Station licenses should specify the maximum number of 10.6 GHz DEMS User Stations to be served by that nodal station. Any increase in that number must be applied for pursuant to § 1.913 of this chapter.

[65 FR 59359, Oct. 5, 2000]

§ 101.505 Frequencies.

Frequencies, and the conditions on which they are available, for DEMS operations are contained in this subpart as well as in § 101.147(m), (n), and (r)(9).

[65 FR 59359, Oct. 5, 2000]

§ 101.507 Frequency stability.

The frequency stability in the 10,550–10,680 MHz band must be $\pm 0.0001\%$ for each DEMS Nodal Station transmitter and $\pm 0.0003\%$ for each DEMS User Station transmitter. The frequency stability in the 24,250–25,250 MHz bands must be $\pm 0.001\%$ for each Nodal Station transmitter and $\pm 0.003\%$ for each User Station transmitter.

[68 FR 4961, Jan. 31, 2003]

§ 101.509 Interference protection criteria.

(a) As a condition for use of frequencies in this service each licensee is required to:

(1) Engineer the system to be reasonably compatible with adjacent and co-channel operations in the same or adjacent areas on all frequencies; and

(2) Cooperate fully and in good faith to resolve whatever potential interference and transmission security problems may be present in adjacent and co-channel operations.

(b) All harmful interference to other users of co-channel and adjacent channel use in the same or adjacent geo-

graphical area are prohibited. In areas where Economic Areas are in close proximity, careful consideration should be given to minimum power requirements and to the location, height, and radiation pattern of the transmitting and receiving antennas. Licensees are expected to cooperate fully in attempting to resolve problems of potential interference before bringing the matter to the attention of the Commission.

(c) Licensee shall coordinate their facilities whenever the facilities have optical line-of-sight into other licensees' areas or are within the same geographic area. Licensees are encouraged to develop operational agreements with relevant licensees in the same or adjacent areas. Incumbent SMSA licensee(s) shall retain exclusive rights to its channel(s) within its SMSA and must be protected.

(d) Licensees shall comply with the appropriate coordination agreements between the United States and Canada and the United States and Mexico concerning cross-border sharing and use of the 24 GHz bands which may require using channels pairs in accordance with the table in § 101.147(r)(9).

(e) The Commission recommends that coordination is not necessary if the power flux density (pfd) at the boundary of the relevant adjacent area is lower than -114 dBW/m² in any 1 MHz. This value can be changed and agreed upon by both coordinating parties. Licensees should be able to deploy with a pfd up to -94 dBW/m² in any 1 MHz at the boundary of the relevant adjacent area without negatively affecting the successful operations of the adjacent area licensee.

[65 FR 59360, Oct. 5, 2000]

§ 101.511 Permissible services.

(a) Authorizations for stations in the 24 GHz Service will be granted to provide services on a common carrier basis or a non-common carrier basis or on both a common carrier and non-common carrier basis in a single authorization.

(b) Stations may render any kind of digital communications service consistent with the Commission's rules